

ST REPORT WEEKLY ONLINE MAGAZINE

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Serving you on: Genie - Delphi - Comp-u-serve

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From the Editor's Desk.....

Welcome to the revamped ST-Report Magazine. A new editorial policy is in effect.

If you have any commentary about this or past issues, Please let us know. We want to be the best Online magazine!

We have just joined Delphi and hope you will check things out. If you are interested in joining Delphi, check out the latest Analog Magazine.

Next week's issue will contain contest information...Till next week....

MAC Report

by W. K. Whitton

Still More and More Mac Tips...

Changes sometimes are amazin and suprisn'! They take place at the least likely times. I was an ardent Spartados user, and now with the St and Magic Sac, much prefer the graphic oriented enviroment they offer. I never thought I'd change... And the Amigas at work, although meant to be run from CLI, never seem to hold the same attraction as when they are up on their WorkBench screen. I guess this is what is known as "spoiled!"

On with the tips!!!

Extended Keyboard Function Keys - What Can I do with Them?

=====

Q: How does one use the function keys on the extended keyboard on a Mac?

A: At the current time the Function keys on the new keyboard are not well supported by existing software except by Terminal Emulation programs such as MacTerminal 2.2. Future software products will probably provide support for the function keys in a broader range of applications.

An Application Can't be Found - Where Have You Looked?

=====

Q: Occasionally I get "An Application Can't Be Found" error message, even though the application is on the hard drive. What causes this?

A: When you open a document from the Finder, the Mac tries to use the application that created the document. On a hard drive with several directories with several tables of contents, a direct search would be time-consuming. So instead of searching all the directories, the Mac searches a few special directories. If the application can't be found there, it will search by using a table in the desktop file. If that file is damaged, the Mac will be unable to find the application, even though it is on the disk, and issue the error message. When this happens, you will have to rebuild your desktop file. On a hard disk, you do this by rebooting the Mac while holding down the Command and Option keys until a dialog box is displayed asking if you want the desktop rebuilt. Click the OK button to continue. On a floppy disk, eject the disk by dragging its icon to the Trash. Reinsert the disk while holding down the Command and Option keys, and when the dialog box appears, click OK.

* * * DISK DRIVES * * *

=====

Interleave - Is it a Secret?

=====

Q: What is "Interleave? I keep hearing about it with respect to HD's.

A: Interleave is the ratio of consecutive sectors to which a CPU can read or write. Your SCSI hard drive spins at a steady rate. Depending on what computer you have it hooked up to, the CPU may not be able to read or write to each sector, but only to every 2nd or 3rd sector, and this is where interleave comes in.

For example, if you think of your hard drive as a Merry-go-round which never stops, and the data from the CPU as the customers trying to get aboard, you have a fair analogy. One Merry-go-round concession may have a slow ticket seller, and customers get through the line slowly, hopping up on the ride so that every third horse is taken. This would be a 3-1 interleave. The next concession has a faster ticket agent, and the people can get through fast enough to occupy every second horse: This is a 2-1 interleave.

You should always initialize from the type of Mac the drive will be connected to. If you will be using the drive with several Macs, initialize the hard disk for the slowest system. Listed below are the Interleaves for the Mac Plus, SE and II, and Apple II.

Computer	Interleave	"Speed"
Macintosh II	1:1	"Fast"
Macintosh SE	2:1	"Medium"
Macintosh Plus	3:1	"Slow"
Apple II	3:1	"Slow"

MacintoshToday

=====

The Premier Issue of "Macintosh Today" made it's appearance at MacWorld Expo on August 11th. The Premier Issue is in a large Tabloid Format and ran 104 pages.

It featured a number of articles under the general headings of News, Communications, Business, Publishing, Graphics, Industry, Perspectives,

Special Reports and Reviews, and columns on Today's Market, Macintosh Advisor, Resources and Futurescapes.

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FEATURE ARTICLE

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ESD: Electrostatic Discharge - It Kills, It Maims, It Corrupts

1. Once a device or peripheral is safely installed in the computer, it is safe from ESD damage. T/F?
2. You can feel a discharge that is high enough to damage a part. T/F?
3. Air Ionizers will solve most static charge problems. T/F?
4. A component damaged by ESD will fail on a diagnostic test. T/F?
5. "I've been in the computer business for ten years, and I've never seen ESD damage." T/F?
6. You have to actually touch a component before there is a possibility of static discharge damaging the component. T/F?

The answer to all six questions above is FALSE.

ESD is a very major concern for Apple, and you will probably be hearing more and more about it from other areas of the industry as well. Today's high tech components are much more susceptible to ESD than the componentry of bygone years, and, as a result, we are much more aware of ESD related problems than in the past. The simple truth is that ESD may be one of the major causes for some of those "intermittent" problems that plague us all and which are so hard to diagnose.

ESD has become more and more of a hazard as microcircuits have become smaller and more sensitive.

Static, or stationary electricity, is electricity that is not moving. It is generated by the separation of two surfaces. One surface is left with a positive charge, and the other with a negative charge. Static electricity is harmless as long as it STAYS static (motionless), but unfortunately, an electrical charge (positive or negative) is unstable, and is always looking for an opposite charge to unite with. Remember those fabric softener commercials? The sock clinging to the sweater? The little "zap" you feel when you walk along a thick carpet and touch someone or reach for a doorknob? The balloon you rub on your clothing to "charge it up" so it will stick to a wall or some other surface? The crackling sound as you pull off a nylon sweater when you're wearing a polyester shirt underneath? The white styrofoam "fill" that clings to everything in sight that is used in packing cases? All of that is static discharge.

The type of static discharge that we are talking about is very small. Most of it you can't even feel. The smallest charge that you feel is 3,000 volts; the smallest charge you can see is 5,000 volts; the smallest charge you can hear is 10,000 volts. But some of the newest semiconductor devices are susceptible to as little as 10 - that's right - TEN volts.

ESD Can Cause Several Kinds of Component Failures

1. UPSET FAILURE: This is a temporary foul-up that can be corrected by turning the device off and on again, or rebooting.
2. SOFT FAILURE: This failure causes intermittent malfunctioning of the equipment - the most frustrating situation for the customer and the most difficult troubleshooting challenge for the repair technician.
3. HARD FAILURE: A failure that makes the component nonfunctional and unrepairable.

Grounding the Service Area

Just about the only way to keep static electricity from arcing out of control is to ground all conductive materials in the area. The simple act of shifting your weight from one foot to the other can generate static, so momentary "touch" grounding is not enough - you need continuous grounding such as that provided by a grounded wrist strap and a grounded workbench mat.

The Seven Rules of ESD Prevention

1. Before working on any device containing a printed circuit, ground yourself and your equipment to an earth or building ground. Use a grounded conductive workbench mat and a grounded wriststrap and ground your equipment to the mat. Make sure you are NOT grounded when working on "live" equipment or when discharging a CRT! Use a Ground/Polarity tester to make sure that your outlets are properly grounded.
2. Don't touch anybody who is working on integrated circuits. If that person is properly grounded, your "zap" will probably not cause any damage, but play it safe and be sure.
3. Use static-shielding bags for boards and chips during storage, handling and transportation.
4. Handle all ICs by the body, NOT the leads.
5. Do not wear polyester clothing or bring plastic, vinyl or styrofoam into the work environment.
6. Never place components on any metal surface.
7. If possible, keep the humidity in the service area between 70% and 90% and use an ion generator.

My Service Area is Secure, So We're OK, Right?

No. ANYONE who handles the computer, printed circuit board or chips needs to follow safe ESD procedures. This includes the salespeople who may pull out a product to show a customer; the manager who is checking on stock; the people who pack/unpack or otherwise handle products in the stockroom; the customer who wants to see the product. If at all possible, have a mat set up in the stockroom where components can be examined and handled safely. Set one up in your sales area on one of the counters with two wrist straps. One for the sales person, and one for the customer. It's a great way to begin educating your customers to the dangers of ESD! Actively disseminate information to your customers about the danger of ESD and educate them to the proper handling of sensitive components.

While touching the power supply on an unplugged computer is not the best insurance against static damage, it is better than no precaution for the customer when he is plugging and unplugging boards in his home.

Midtown TV Atari 8/16 & Amiga Sales&Repair
27 Midway Plaza Tallmadge, Ohio 44278
(216)633-0997

Stairway To Heaven BBS -> 216-784-0574 300/1200 24hrs. DL's for Atari
8/16 & Amiga

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Timeworks Desktop Publisher Review

by Tom "Rex" Reade

It was approaching 5:30pm when the UPS driver pulled up in front of the house, as he walked up the lane to the front door, I thought to myself, I wonder what improvements have been made over the UK version, I was about to find out.....

After having digested the easy to read book, I began the installation process. I booted the program [INSTALL.APP] and simply followed the prompts, in less than 15 minutes I was up and running.

The program author seems to have thought of everything, as it was installing itself this became very evident. The prompts were easy to follow and the folders it created on my hard disk drive "E" (you choose this too) were neat and understandable.

This system of installation is quite flexible, the program will run in any hardware configuration. This makes it easy for anybody to set it up and begin to enjoy some fine productivity in the desktop publishing arena.

DTP embodies perhaps, ALL the fine features one could possibly expect, I realize that there will be updates in the future and more features added or modified. Coupled with Timeworks' excellent upgrade policy, a user is virtually spoonfed the very latest in program innovation and kept abreast of the most recent developments almost as fast as they occur.

Some of the features:

- | | |
|----------------------------|--------------------------------|
| a- GEM user interface | b- full flex page layout |
| c- good selection of fonts | d- ultra-high quality printout |
| e- built in Word Processor | f- text importation |
| g- graphic importation | h- graphics toolbox |
| i- auto text flow w/wrap | j- kerning and leading |
| k- multi page view sizes | l- on-screen rulers |
| m- adjustable snaps | n- 1/1000" precision placing |
| o- qwik-keys | p- auto page numbering |
| q- auto hyphenation | r- auto bullet (15) |
| s- L/R master pages | t- style sheets |
| u- paragraph tagging | v- text run-around |

Printer support is the most important area to examine in the fast moving

market of Desk Top Publishing, too many times I have called the major Boards and found users having fits over printer drivers. You will not have this problem with this DTP, as it covers all the bases rather nicely, including POSTSCRIPT. The program even custom designs a driver for the type of printer you plan to use. It is almost as if the program has a mind of it's own and carefully thinks out all the pitfalls you may encounter and eliminates them...you can actually see it occur as it installs itself on either your floppies or hard disk.

Anybody can now be a whiz at desktop publishing, the user interface with the program is excellent, the documentation is superb and the company is super pleasant to deal with.

Lastly, the Timeworks Co. will, if you are not satisfied, within 90 days of your purchase of this fine program, buy the DTP of your choice (if available). All you need do is send the difference in cost along with your original receipt. I see that as the final word in confidence for a product! I was not, under any circumstances, disappointed with this product and believe me, if I were, you would read it here...

The compatability with other programs is "oh so very nice". Importation of text and graphics is very easy and fast. No mazes of complex operations to go through.

As shipped, TDP arrives with 6 disks and a manual, extra labels for your running disks and in the main manual, is a mini manual designed to get you up and running in no time at all. The sixth disk is a treat from Timeworks, it has two folders full of inspiration in the form of clip art and sample layouts.

REX'S RATING:	1 - EASE OF USE	10+
	2 - DOCUMENTATION	10
	3 - VALUE	10+

I highly reccommend this program to anyone wanting first class results in the desktop publishing field.

Light Gun Modification Reprinted from ZMAG102 by Dennis Griffin

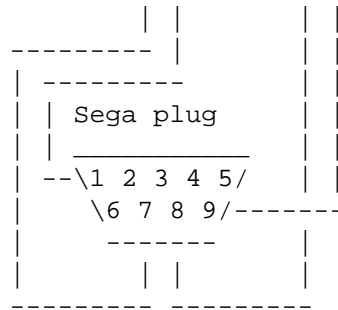
It seems that in "Atari's Great Marketing Plan" the 8-bit users are to be forgotten again. Atari released a wonderful game, Barnyard Blaster, complete with great graphics and special effects. I can even buy it locally. What's the problem? To play the game you must have a light gun. No problem for the owners for the new XE Game Machine (a redesigned 65XE), for the light gun comes with the unit. However, this light gun is not sold apart from Game Machine.

Add to this a house full of kids watching their friends use the Sega and Nintendo light guns. That gave me an idea. Hook up one of the other guns. The Sega Has the same kind of plug so I tried that one.

To make it work you must change the pin out.

computer joystick port one

\1	2	3	4	5/-----	
\6	7	8	9/-----		



AS YOU LOOK AT THE COMPUTER AND SEGA PLUG

Note: The connection from the computers #9 pin is made to the #8 pin of the Sega plug.

I also adapted a light pen program from Analog.

```

10 REM TARGET
20 REM BY DENNIS GRIFFIN
30 REM XADJ & YADJ IN LINE
40 REM 100 FOR SOFTWARE
50 REM SIGHT ADJUSTMENTS
100 XADJ=10:YADJ=12
110 GRAPHICS 7:POKE 712,14:POKE 708,0:SHOTS=0:POKE 752,1
115 COLOR 3:PLOT 0,80:DRAWTO 0,0:DRAWTO 159,0:DRAWTO 159,80
120 COLOR 2:PLOT 80,20:DRAWTO 80,60:PLOT 60,40:DRAWTO 100,40:COLOR 1
125 PRINT "      TARGET BY DENNIS GRIFFIN"
130 IF PEEK(54016)<>255 THEN 130
140 SHOTS=SHOTS+1
150 IF PEEK(54016)=255 THEN 150
160 X=PEEK(564)-XADJ:Y=PEEK(565)-YADJ
170 IF X<25 THEN X=X+228
180 X=X-80:Y=Y-18
190 IF X<0 THEN X=0
200 IF X>159 THEN X=159
210 IF Y<0 THEN Y=0
220 IF Y>79 THEN Y=79
230 PLOT X,Y
240 FOR P=17 TO 25
250 SOUND 0,P,8,(RND(0)*10+5)/(0.1*P)
260 SOUND 1,P+20,8,(RND(0)*10+5)/(0.1*P)
270 NEXT P:SOUND 0,0,0,0:SOUND 1,0,0,0
280 IF SHOTS<10 THEN 130
290 END

```

The Sega/Atari Gun works great and now I have happy kids. I only wish I could get my computer back.

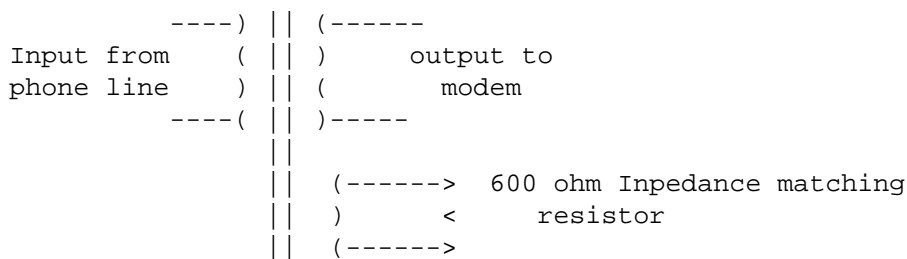
Modem Fix

Ctsy CompuServe Atari16 SIG

#: 47388 S2/CompuServe & BBSs 27-Dec-86 22:10:29
 Sb: #Interlink
 Fm: Jeff Rigby/Intersect Sof 74615,323
 To: Dave Groves

I have never had the pleasure of taking apart a Courier 2400 but most modems use the same input transformer (FCC Regulations).

Below is a schematic drawing of the Input transformer circuit:



Transformer

You change the 600 ohm (blue black brown) resistor, to a lower value by tacking a resistor in parallel. Try values from 1000 ohms to 600 minimum. This is a quick and dirty method, it works by making the transformer less efficient and thereby reducing the sensitivity of the circuit. The resistor is there to cause the input transformer to match the phone line (600 ohms) impedance. When you have an impedance match you have maximum transfer of energy. Choose the highest value resistor that gives the fewest errors.

Jeff Rigby c/o SOTA Computers
3949 Sawyer Rd.
Sarasota, Fl. 33583
813-922-6244

ST-Report Modem Guide

by Tom "Rex" Reade

What are "AT" commands???

"AT" commands are the way you tell your modem exactly what you want it to do in all situations of operation.

Why do I have dip switches?

"Dip Switches are there to set up a foundation for your custom set-up in the "S" register bank.

Are Dip Switches necessary?

No, you can do very well without them, however, some of the "Hayes Compatable" types are really difficult to live with.....

What is the "AT" for?

The "AT" performs a very special purpose 1st, it tells the modem what speed your terminal or program is set at. 2nd, it tells the modem "Attention you are about to receive very important info to remember and use".

Throughout this document, I will attempt to explain as much as possible in PLAIN language, if there are any unanswered questions. Drop a note to the sysop here and we will try to help you.

SOME TERMINOLOGY DEFINED:

=====

ACK - ACKnowledgement handshake successfull, a data bit ok, a good command or message to the modem etc....

NAK - Negative AcKnowledgegment unsuccessful handshake, retry, abort, etc

DCE - Data Communication Equipment (modem) or integral system.

DTE - The equipment comprising the Data source, the data receptor or both

DTR - Data Terminal Ready..waiting for action source, usually pin 20
(rs232) EIA.

DSR - Data Set Ready distant end of connection ready, is all aligned?

CTS/RTS - X-ON/X-OFF - methods of flow control. Pin 5 for CTS, Pin 4 for
RTS..

DIP SWITCHES - CONFIGURATION SWITCHES

=====

AUTO ANSWER	DIAL TYPE	RESULT CODE TYPE	ECHO
DUPLEX	QUIET	SPEAKER	MEMORY
BLIND	STOP BITS	PARITY	BAUD
DTR	COMMAND TYPE	DATA RATE	DIALER

These are most of the switch types you will encounter, there are more and we would enjoy your input in this area to update this document. I would love to see this doc grow to a point where it will answer all the pertinent questions that may arise.

"S" Registers

Usually there are 28 S registers to contend with some are direct and others are "Bit Mapped".

"Bit Mapped" registers are set by the keyboard commands to the modem,ie..
"ATA,ATF1,ATM0,etc....

Keyboard Commands: n represents a number 0-9

=====

AT = Attention	A = Answer	AAn = autoanswer on/off
Bn = Baud	Dn = Dial a numb.	P = Pulse
T = Tone	R = Reverse	, = pause
; = Command	En = Echo on/off	Fn = Full/half duplex
Hn = hook on/off	Mn = speaker adj	O = Online
Qn = quiet on/off	A/ = repeat commmand	Sr? = Show register
Vn = Verbose on/off	Xn = extended on/off	Z = ZAP/Reset

Sr=n Set register number (0-28)

All of the above are preceded by an "AT" except the [a/] it can be used just as A/.....

Almost all the time the number for the on/off is 0 or 1, 0=off,1=on.

DATA RATE CODES

The Telephone Companies Worldwide use certain codes to establish Baud Rates between modems.

300 baud bell 103/212a	1200 baud Bell 212a	2400 baud V22 bis
FSK	DPSK	QAM
9600 baud CCITT V.32		

"S" REGISTER LIST

Reg #	Function	Reg #	Function
0 - # of rings b4 Auto answer		1 - Ring Counter Auto dial	
2 - Esc char. code		3 - Carriage RET char.	
4 - Line Feed Char.		5 - Back Space char.	
6 - Dial tone timer		7 - Carrier wait timer	
8 - Pause timer for comma		9 - Valid Carrier timer	
10 - No Carrier to Disc. timer		11 - Interdigit Delay	
12 - Esc. Guard timer		13 - Bit Mapped	
14 - Bit Mapped		15 - Bit Mapped	
16 - Bit Mapped		17 - Bit Mapped	
18 - Repeat Rate sec.		19 - Repeat Count	
20 - OFF flow control		21 - ON flow control	
22 - Bit Mapped		23 - Bit Mapped	
24 - Bit Mapped		25 - Delay to DTR (sync only)	
26 - Delay to CTS/RTS		27 - Bit Mapped	

Note: some modem manufacturers use certain Bit Mapped S registers for custom code entries for the models they make, consult their manual.

```

*****                COMPLETE HAYES AT COMMAND TABLES                *****
=====
AT... Command line prefix, (ATention code) precedes command lines except
{+++ escape code, and {A/ (repeat) commands.
A....Go off hook in answer mode.
A/....Repeat last command line (NOT followed by a CR).
Bn....Selects operational baud rate and code.
Dn....Dial number..
En....Selects Echo or No Echo
Fn....Selects Duplex full/half
Hn....On/Off hook operation.
I....Modem self ID.
Ln....Speaker Loudness
Mn....Speaker interrupt control.
O....Return to online state.
Qn....Modem sends result codes ON/OFF.
Sr=n..Set register r to value n.
Sr?...Show value in given register.
Vn....Verbose or Terse result codes.
X....CONNECT result code shown
X1....Blind Dial, connect xxxx shown, no busy signal recognition.
X2....Wait for Dial tone, connect xxxx shown, no busy signal recognition.
X3....Blind Dial, connect xxxx shown, Busy result code shown.
X4....Wait for Dial Tone, connect xxxx shown, Busy result code shown.
Yn....Long Space Disc. on/off
&Cn...DCD forced or sensitive.
&D....DTR ignored by modem.
&D1...DTR on to off transition, modem enters command mode.
&D2...DTR on to off, modem enters command mode and disables auto answer.
&F....Load factory configuration.
&G....No Guard Tone.
&G1...use 550hz g.tone.
&G2...use 1800hz g.tone.
&Jn...Select type of telephone jack.
&Ln...Select dialup or leased line.
&Mn...Asynch/Synch.
&W....Write this config to non-volatile memory.

```

Remember, AT goes before all commands except (+++) and (A/).

EIA RS232C CIRCUITS and PINOUT for CONNECTORS

=====

PIN #	DESCRIPTION	CCITT EQUIVALENT
1....	Protective Ground	101
7....	Signal Ground, Common Return	102
2....	Transmitted Data	103
3....	Received Data	104
4....	Request to Send	105
5....	Clear to Send	106
6....	Data Set Ready DSR	107
20....	Data Terminal Ready DTR	108.2
22....	Ring Indicator	125
8....	Received Line Signal Detector DCD	109
21....	Signal Quality Detector	110
23....	Data Signal Rate Detector (DTE)	111
23....	Data Signal Rate Detector (DCE)	112
24....	Transmit Signal Timing (DTE)	113
15....	Transmit Signal Timing (DCE)	114
17....	Receiver Signal Timing (DCE)	115
14....	Secondary Transmitted Data	118
16....	Secondary Received Data	119
19....	Secondary Request to Send	120
13....	Secondary Clear to Send	121
12....	Secondary Received Line Signal Detector	122
25....	Busy Out	---

Note: pins 11, 18, and 25 are unassigned, pins 9, 10, reserved for dataset testing.

I sincerely hope this helps all the users get better acquainted with their modems and learn to use them more efficiently.

FCC Hoax ST-Report Special Report by Al Fasoldt

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by Al Fasoldt Sysop-Tecnofile BBS (315) 685-5385

Computer BBS operators have been passing around urgent messages in the last few months warning of what they believe is a government attempt to license BBS operations.

These "sysops," as BBS system operators are called, are calling for quick action to keep the government from placing private computer communications in the same category as amateur radio transmissions. The messages being passed from computer to computer say the government may try to license BBS owners the same way it now licenses ham radio operators - and this, they say, would be the first step toward federal regulation of every BBS in the United States.

The government is already monitoring BBS operations, according to these warnings. They claim that federal funds are paying for a special BBS in Connecticut that is snooping on other bulletin boards. The sysop of this federal BBS has been quoted as saying it is being run as a test for the government and FCC to determine if bulletin board systems ... should be charged for use."

A major electronic publication, Info-Mat, picked up on the story and

added its own warning, as did a columnist for the monthly print magazine "Computer Shopper." In both cases, the account was presented as fact.

Unfortunately, neither the sysops nor the two publications dug deep enough to uncover the actual origin of the story. It's a hoax, apparently concocted last winter after the Federal Communications Commission began looking into new reports that computer hackers had used their telephone modems to call large business and government computers and destroy files.

The FCC inquiry had nothing to do with computer bulletin boards, which are usually run on personal computers to give callers a place to share messages and software. But many of the thousands of sysops around the country apparently became worried enough about government intervention to fall for the story.

The hoax centers on a "government" bulletin board in Connecticut called the Cyber Foundation BBS. It is an actual BBS (its telephone number is 203-264-5463), but has no connection with the United States government.

Whether the hoax originated at the Cyber Foundation BBS or elsewhere isn't certain. However, Info-Mat said one of the magazine's affiliated sysops called the Cyber Foundation and noticed a public bulletin from Chris Regan, who was identified as Cyber's system operator. The Info-Mat account said Regan told callers that Cyber is a "government supported" system located in the "Southbury/Middlebury area" of Connecticut.

"This is a test," Info-Mat quoted Regan as saying, "to see if Bulletin Boards, their phone lines, and others, should be taxed or have a tariff placed on the information."

Info-Mat said Regan listed "the United States Instructional Department" as the sponsor of the Cyber Foundation BBS.

I called both the FCC and the Cyber Foundation BBS to check out the facts. I logged onto Cyber three times and identified myself as a reporter, but was not - as of last week - allowed to get past the opening message. (The Cyber BBS is set up so that some callers can be barred from every function except logging on, writing a message to the sysop, and logging off.)

I left messages for the sysop asking about the "government" connection but have not yet received a satisfactory reply.

The FCC, however, was quick to respond.

"You must be kidding," an FCC spokesman told me when I called Washington.

When I quoted the Info-Mat article, another FCC representative came on the line. "No way," the second FCC spokesman said. "We are doing no such thing. We've never heard of that BBS. And there is no such thing as the United States Instructional Department."

Calls to a few other agencies gave the same result. However, I did discover that the United States government does in fact operate at least one computer bulletin board.

The one that I was able to log onto is the USNO BBS (202 653-1079), in Washington, D.C, run by the United States Naval Observatory. It provides information of interest to amateur and professional astronomers as well

as a variety of time-and-date services.

One of its most valuable services, if you have an IBM-compatible personal computer, is a program you can download from the USNO BBS that will let your computer automatically call another Navy computer and set its internal clock from the official government clock.

You don't need to use the special BASIC language software to get an accurate reading of the time, however. You can have your computer call the Navy's time computer and look at the seconds ticking off on the screen. That number, at 1200 baud, is 202 653-0351. The Navy computer will automatically log you off after a minute or two.

If you call the USNO BBS, be sure to set your telecommunications software to the parameters it requires (they're different from most): 7 data bits, 2 stop bits and even parity. And be prepared to act quickly when you log onto the Navy's BBS. Its computer won't let anyone tarry. You'll see this message if your fingers are fast enough to keep the keyboard busy before the Navy gives you its deep-six:

''Please note that every call is limited to 20 minutes or 14 commands, whichever comes first. This is a protection measure made necessary by some callers who try to use the system for purposes for which it is not intended.

The most frequent trouble, however, is failure to follow instructions or inability to hit the right key. In that case typing lessons would be the remedy.'' At least the Navy has a sense of humor.

(Readers with computers and modems can read Technofile columns and hundreds of other technology-related texts on the Technofile BBS, at 315 685-5385. By mail, you can reach the Technofile at the Syracuse Newspapers, Box 4915, Syracuse, N.Y. 13221.)

(FILED BY THE POST STANDARD AND HERALD-JOURNAL, SYRACUSE, NEW YORK)
(time: 6:45:19 date: 4-11-88)

SPC Newswire

ATARI ON 10 MOST ACTIVE LIST OF APRIL 8, 1988

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Stock	Sales	Last	Net	Chg.
Lorimar Tel	433,700	15	off	1/4
Wang Lab B	368,900	12	off	1/4
Dome Petrol	352,200	1	unch	
DWG Corp	338,400	8 1/4	up	1 1/4
Amrcs Scr Sears	313,100	3 3/8	off	3/8
ENSCO	296,700	3 3/8	up	1/8
Amdahl Corp	268,200	35 3/4	up	1 1/8
Cmputr Consol	263,500	7 1/4	up	3/8
BAT Indus	233,100	8 3/8	up	7-16
Atari Corp	230,000	6 5/8	off	1/8

ATARI ON 10 MOST ACTIVE WEEK TRADING APRIL 9

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Stock	Sales	High	Low	Close	Net Chg.
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Dome Petrol	2,333,300	1 1-16	15-16	1	unch	
Lorimar Tel	1,901,600	15 1/2	13 1/2	15	up	1/2
Wang Lab B	1,880,800	12 1/2	11 1/2	12	up	3/8
Texas Air	1,196,300	12 3/4	11 1/4	12	off	1
Echo Bay Min	1,124,500	22 1/4	21 1/8	21 1/8	off	3/8
NY Times A	1,082,600	30 7/8	28 3/4	30 1/2	up	7/8
Alza Corp A	931,900	26 1/4	24 1/4	25 3/4	off	3/8
Amdahl Corp	830,300	35 7/8	32 1/8	35 3/4	up	2 3/8
ICH Corp	825,900	7 1/4	6 7/8	7 1/4	up	1/8
Atari Corp	785,000	7	6 1/4	6 5/8	off	1/2

INTEL CORP. INTRODUCES 16 NEW "EMBEDDED" COMPUTER CHIPS

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SANTA CLARA, Calif. (APRIL 5) UPI - Intel Corp. Tuesday launched 16 new computer chips and related products, intended to be used as the brains of planes, robots, cars and other items.

The chips are Intel's attempt to extend its reach from the microprocessor market, where it is already a dominant supplier of chips for personal computers, to the fast-growing market for "embedded" chips.

Embedded chips, also known as microcontrollers, are buried deep within products, such as microwave ovens, and are programmable to perform specialized tasks like cooking a chicken.

The chips are already widely used in a vast array of consumer products, including coffeemakers and sewing machines, as well as sophisticated military aircraft.

Dr. Andrew Grove, chairman of Santa Clara-based Intel, said his company intends to pressure its rivals in the microcontroller market.

Alice Leeper, a senior industry analyst for Dataquest Inc. in San Jose, Calif., estimated the market for microcontrollers will grow this year to \$2.1 billion, up from \$1.8 billion in 1987 and not counting as much as \$500 million in side-tracked microprocessors.

Among the new products are three microcontrollers, including one for military use, based on a new microcontroller architecture derived from advanced technology called RISC or reduced instruction set computing.

Intel also introduced the 80736 microprocessor, a customized version of its 80386 microprocessor, which is the basis for a family of personal computers recently introduced by International Business Machines Corp.

In addition, Intel announced a new technology it calls "FLASH," aimed at enabling embedded chips to be speedily and cheaply reprogrammed for new uses, now a risky and time-consuming process.

APPLE COMPUTER MAKES WORLDWIDE SALES, MARKETING MORE REGIONALIZED

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CUPERTINO, Calif. (APRIL 7) UPI - Apple Computer Inc. Thursday said it is changing the way it sells and markets its products in a bid to position itself for growth and profitability in the 1990s.

"As Apple moves towards becoming a 21st century, multibillion-dollar global corporation, we must continue to build an organization that is ... adaptable enough to keep pace with our anticipated growth," said Del Yocam, Apple's chief operating officer.

In general, the changes appear to shift decision-making power away from executives in Apple's corporate offices in California to regional headquarters throughout the world.

The shift would presumably improve Apple's ability to target markets, such as the fast-growing Pacific Rim, and customize its products to suit varying needs.

Decentralization was also the theme of a restructuring plan recently adopted by Apple's rival in the personal computer market, International Business Machines Corp. of Armonk, N.Y.

The changes announced by Apple include:

- Giving the company's domestic sales and marketing subsidiary a new name - Apple USA
- and dividing it into six groups: business markets, Apple education, marketing and support, and operating divisions for the east, west and central United States.
- Splitting Apple's international arm into two operating units: Apple Pacific and Apple Europe. Both groups will report to Yocam.
- Turning Apple's Paris office into its European headquarters for marketing and operations. Apple Europe, however, will also be divided into four business regions: one apiece for France, Germany, Nordic countries and others in a so-called "general European area."
- Establishing Apple's first regional research and development center at its European headquarters. The center will respond to European needs and develop customized products to suit them, Apple said.
- Creating an End User Services unit to respond to customers, including those using Apple products as part of a system that includes products made by other computer companies.

Several promotions or personnel changes will be involved in the restructuring, most notably in the company's financial management. Deborah Coleman, vice president and chief financial officer of Apple, has promoted Kenneth R. Ratcliffe to the newly created position of controller, with oversight over Apple's worldwide financial operations.

McGRAW-HILL NEWS AVAILABLE ON BYTE INFORMATION EXCHANGE, DATA RESOURCES
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NEW YORK (APRIL 4) PRWIRE - McGraw-Hill News, a real-time business news service designed for online use, is now available to customers of the BYTE Information Exchange (BIX), and Data Resources, it was announced today. Both BIX, a computer conferencing network, and Data Resources, an economic forecasting service, are McGraw-Hill enterprises.

McGraw-Hill News is also available over McGraw-Hill Executive One, an FM broadcast delivery service for PC users, as well as Dialog and CompuServe.

McGraw-Hill News stories, covering corporate, industry and government news as well as stock market activity, are filed by correspondents in the company's worldwide electronic reporting network. McGraw-Hill News editors then expand key stories with more detailed coverage and commentary.

"We can tell our subscribers not just what happened, but what the news means," said Anthony Durniak, general manager of McGraw-Hill News. "What sets us apart from business newswires is our access to McGraw-Hill's various specialists--S&P analysts, Data Resources economists, and editors

at over 80 industry-specific newsletters and magazines which help us add insight to our reporting and follow-up."

BIX, an online service of BYTE Magazine, offers information, services and technical support to over 22,000 computer professionals and enthusiasts worldwide. Over 160 online "conferences" let BIX users with common interest share information and resources. BIX also offers public domain software libraries and a newswire of computer news and new products listings.

Data Resources provides a total information system to its 6,000 customers that includes more than 30,000,000 historical and forecast data series; simulation and forecasting models for national, industrial and financial sectors; analytic software tools; and data access, delivery, and management systems.

McGraw-Hill, Inc. (NYSE: MHP), headquartered in New York, is one of the world's leading publishing and information services companies. The company which celebrates its 100th anniversary in 1988, provides information in print, online, and over the air. Sales for 1987 were \$1.75 billion.

Probing Your ST

by W. K. Whitton

In the spirit of Easter, the season of the death and Resurrection of Christ, I guess it is only fitting that the topic of this column is a resurrection of sorts...the resurrection of your deceased mouse!!!

Many folk have been complaining about varied problems with their little "fuzzies", and I will here attempt to share with you some of the very same tactics that I use to attack these beasties right here in the shop.

Problem A:

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"The cursor does move in all directions, but does so in a "jumpy" manner, the motion is not at all "fluid"."

Cure A:

=====

Aside from not using a mouse pad, what appears to be the problem here is "gunk!". Turn the little beastie over, and you will see small plastic panel, roughly the shape of a half-circle. Place your 2 thumbs on the 2 arrow markings you see on this panel, and pressing firmly, push in the direction of the arrows. Now take the ball out. Clean this with Freon TF by dousing a paper towel or the like and rubbing the ball with it. Freon TF is a truly safe chemical, and can be gotten from most electronic supply houses. It is the ONLY chemical that is absolutely safe to do this, clean R/W heads in your disk drive, clean VCR heads, clean tuners, and many other electronic items. Please do not use anything else, it may work, but not on everything, and then you may end up with an expensive repair that you surely didn't plan on!

Next, as you examine the innards of your mouse, still not having taken the top off, you will see 3 rollers, located at approximately the S, E, and NW pole positions. Get a foam swab, wet it with Freon TF, and proceed to clean these rollers till they shine and are free from all foreign matter. After the rollers are dry, (only a minute if you used the Freon TF), reinsert the ball, pop the bottom back on, and the jumpiness should no longer exist!

Problem B:

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This is the most common HARD fix... "Mouse apparently works in one direction, but not at all or slightly in the other".

Cure B:

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If you are not comfortable with electronics, please do not proceed any further. Just send it to your local service center, or to Midtown if you have none. If you feel comfortable, great!

Remove the panel from the bottom as in cure a, and take the ball out, and set it aside. Remove the 2 screws from end of the mouse that has the cable coming out of it, and set aside these screws. Using a small, regular screwdriver, at the opposite end of the mouse from the cable, pop the mouse open.

First, take a meter and check the continuity of each conductor on the mouse cable, making sure each pin of the joystick plug has some kind of continuity to the inside of the mouse.

Now, you will notice 2 small rods, with a wheel-like device on each. Turn these one at a time with your ST on, and notice one will give you a normal reaction, while the other won't. Make a note of the wheel that reacts wrongly. Move the clips at the end of the rod that houses the wheel that acts funny, and pull the rod/wheel assembly out and set aside. Look carefully at where each end of the wheel went into a small square opening before. You will see 2 such orafices. Take a small jewelers screwdriver, and simply move in and out of each orafice. You will note that one will give you a reaction, and the other none whatsoever! The two photo-electronics that give you no reaction whatsoever are the culprits.

These are available from Midtown at a minimal cost, or possibly your local Atari dealer. When you get replacements, you will note one is red, and the other is clear. Make sure you replace each with the proper color, and it faces the same direction as it came out. The desoldering here is going to be a bit touchy, so take your time and do a good job. I have found that once all the solder has been removed from the connection in this area, it is best to use a jewelers screwdriver and move the lead from side to side to make sure it is freed up, and then use that same tool to push it up out of the PC board. This in 90% percent of cases I have seen take care of your problem.

One last component that could be bad is the LM339 IC. The two-fold reason I mentioned this last is that not only is it one of the least likely sources of this problem, but due to the surface mount technology, if it wasn't bad before you took it off, it almost assuredly will be now! Replace this only as a last resort!

If you wish to order any parts the prices are:

Set of photo-isolators	= 4.50
Mouse cord	= 9.50
LM339 IC	= 5.25

If you care to send it in for repair, Midtown will repair it for a flat rate of \$25, plus shipping and handling. All the parts must be there, and not demolished!

My hope is that this article will make your life with your St and its pet

mouse much more enjoyable, and long-lived too!

Take heart you hardware-hacking fiends!- many more articles of this variety are in the works. If you care to submit any hints, projects, or mods, please do so, we are endeavoring to supply as much good information for the ST user as possible. Enjoy!

W. K. Whitton (Mr. Goodprobe)
Midtown TV (216)633-0997 Atari 8/16, Amiga Sales/repair
Stairway To Heaven BBS (300-1200 24 hrs.) (216)784-0574

PC Ditto & AHDFIX.PRG

#: 84260 S3/ST Applications 18-Dec-87 05:22:08
Sb: pc-ditto & AHDFIX.PRG
Fm: SYSOP*Dan Rhea 76703,4364
To: ALL

VERY IMPORTANT !!!!!

If you have used the latest and greatest Atari HD utilities to format your hard drive _and_ you have run HDINSTAL.PRG so that the hard drive will autoboot, you MUST re-run HDINSTAL.PRG after AHDFIX.PRG has finished. If you fail to re-run HDINSTAL.PRG your drive will not autoboot (so keep a boot floppy handy with AHDI.PRG on it.

I used the fix utility tonight (well this morning actually), and discovered that AHDFIX.PRG worked fantastic! I can now access C:-F: and even handle my folders/sub-directories. The problem showed up later when I tried to re-boot my system. It refused to go to the hard drive for bootup. Fortunately Atari's HDINSTAL.PRG will re-enable autoboot without interference to AHDFIX.PRG and pc-ditto. To simplify, follow this path.

start: SH204 formatted with the latest Atari HD Utilitys an set to autoboot with HDINSTAL.PRG

Run AHDFIX.PRG to clean things up for proper pc-ditto operation

Re-run HDINSTAL.PRG (from boot floppy), to re-enable normal autoboot and normal pc-ditto operation

My thanks and many kudos for Bill Teal for providing this fix to us SH204 hard drive users. Now THIS is support!

Finally, I'll be looking into the device by zero problems later on today. Film at 11 (give or take a few hours).

Dan (happy at last...)

Public Domain Shelf

by Alice Amore

Sysop of: Pipeline BBS(216)336-3774 Ohio Software Exchange (216)334-4145

Once in awhile, a program comes along which gives us a pleasant jolt. Such is the case with GOODIES, an enormously handy desk accessory which combines a group of much-needed utilities into one small (less than 34K) package. Sad to say, there is no credit given to the programmer of this file. The only clue we have is the way the date entry is configured (DD/MM/YY instead of MM/DD/YY), which suggests that perhaps the programmer is somewhere in Europe (where DD/MM/YY is standard).

GOODIES consists of a 26K .ACC file and a 7K .RSC file. Both files must be on your boot disk. GOODIES is then accessible under the DESK option on the desktop and seems to work with just about any GEM-based program and in all three resolutions.

When you boot your disk, you will see GOODIES even before you see your disk directory. This is so that you can set the time and date. But you can always default to the time and date already on the disk.

To access GOODIES directly, click on DESK, and then on GOODIES. You will be presented with a menu made up of icons, a nice touch. Simply click on an icon to activate a function. All functions use dialog boxes and prompting, which means if you are new to the ST, you will have little trouble moving through the program. Additionally, all functions are abortable.

THE GOODIES:
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SET TIME
=====

This function is displayed automatically at boot-up time, but also can be accessed from the icon menu. You can change the time or leave it as is.

SET DATE
=====

Same as above. A little confusing for Americans who are used to the month being on the far left.

RAMDISK:
=====

Click on the size of RAMdisk you want to create. Although you can't choose a number at random, you do have a decent choice of built-in sizes.

For those with .5 meg, choose 64K, 128k, 192K, 256K, or 320K. Those with 1 meg have the additional choices of 384K, 448K, 512K, 576K, 640K, 704K, or 768K. I've had problems getting the maximum amount of K into the RAMdisk on both .5 meg and 1 meg machines, possibly due to the fact that GOODIES itself is taking up some room. Once you've determined the size of your RAMdisk, YOU WILL BE TOLD to install Drive D, and you will be guided through the process. It's almost impossible to mess up.

PRINT DIR
=====

This feature sends a directory list to your printer. You will be asked to choose any drive from A through I. After playing with it for awhile, I finally figured out that it prints out the filenames according to the order in which they were saved to disk. The filename, size, date and time are printed out for each file. Directories are set off by slashes, and the files within the directories follow for each directory.

BACK-UP:
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This feature backs up an entire disk. I wouldn't recommend it for anyone using one drive. Use the RAMdisk instead. But for those having two drives, it works very well. Source and destination can be drives A-I. Default is A-B.

UNDELETE

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If you've recently deleted a file and want it back, this is for you. Enter the path/file names as prompted. If you enter nothing here, it will default to Drive A. After your file is restored, you won't see it unless you fool the program into thinking that you've inserted a new disk. Do as I do: partially remove the disk, then reinsert it. Your previously deleted file should now be visible in the directory.

FILECOPY

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Use this to copy individual files from disk to disk. Click on the source drive and the destination drive, then enter the filename. Wildcards can be used, and they work very well. Either an asterisk or a question mark may be used to denote a wildcard.

GOODIES is well worth having. I haven't seen it on too many BBSs, though, so I would encourage all you sysops out there to make it available to callers.

==*

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